

**STATE OF SOUTH CAROLINA**  
**BEFORE THE PUBLIC SERVICE COMMISSION**  
**DOCKET NO. 2019-239-E**

In the Matter of:	)	
	)	South Carolina State Conference of the
Dominion Energy South Carolina,	)	NAACP, South Carolina Coastal
Inc.'s Request for Approval of	)	Conservation League and Southern
Demand Side Management	)	Alliance for Clean Energy Comments in
Programs and a Modified Demand	)	Response to the December 10, 2019
Side Management Rate Rider	)	Commission Directive Order
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The South Carolina State Conference of the NAACP, the South Carolina Coastal Conservation League, and Southern Alliance for Clean Energy (collectively, “Efficiency Intervenors”) submit these comments in response to the Commission Directive issued on December 10, 2019 in this docket. In that directive order, the Commission gave Efficiency Intervenors sixty days to comment on whether the programs listed in Section 2.1 of the Chant Late Filed Hearing Exhibit (the “late-filed exhibit”) are duplicative of programs already included in the Dominion Energy South Carolina, Inc. (“DESC”) demand-side management and energy efficiency portfolio.

- 1) DESC’s portfolio does not *prioritize* energy efficiency programs to reduce winter peak, as recommended in the late-filed exhibit and as required by the Commission in Order 2018-322(A).**

First, Section 2.1 of the late-filed exhibit (titled “Efficiency Measures to Prioritize”) recommended that DESC *prioritize* four measures: (1) air seal and insulate; (2) replacing resistance heat with heat pumps; (3) smart thermostats, ductwork sealing

and insulation; and (4) combined heat and power—specifically for the purpose of reducing winter peak. The late-filed exhibit did not suggest that it would be adequate for DESC to merely offer the proposed measures in piecemeal fashion across multiple programs; rather, Section 2.1 provided an “array of measures and strategies that can be *combined into winter-peak reduction programs* for different sectors.” Chant Late Filed Exhibit p. 3 (emphasis added).

The effectiveness of an energy efficiency portfolio is a function not only of what measures and programs are offered, but also how those programs are designed—including how measures are bundled into programs—and whether they actually address the issues that are priorities for the utility, Commission, and ratepayers. DESC’s mere inclusion of some of the suggested peak-reduction efficiency measures in its portfolio does not mean that DESC has *prioritized them in a targeted, aggressive effort* to reduce winter peak demand and energy usage as recommended in the late filed exhibit and required by the Commission in Order No. 2018-322(A), filed in Docket No. 2018-2-E (requiring that DESC “take all appropriate measures to aggressively pursue economic demand side management and energy efficiency programs, *targeted at reducing the winter peak*” and “investigate and implement economic demand side management and energy efficiency programs with an *emphasis on decreasing the newly developed winter peak*.” Order No. 2018-322(A) pp. 15, 46 (emphases added).

To effectively prioritize the measures included in Section 2.1 of the late-filed exhibit, DESC needs to analyze how those energy efficiency measures could be used to effectively decrease winter peak. DESC’s potential study did not conduct such an analysis. Instead, DESC’s potential study focused only on demand response programs

(often referred to as “demand side management” programs) rather than energy efficiency programs for the purpose of analyzing winter peak. As Efficiency Intervenors’ witness Elizabeth Chant noted in her surrebuttal testimony, DESC “appear[ed] to ignore the fact that the Commission’s directive included energy efficiency as well as demand response” and that “[w]hile some of the programs in the proposed portfolio likely have the effect of reducing winter peak, it does not appear that the Company has explicitly considered this provision of the Commission’s order in designing its proposed portfolio.” Chant Surrebuttal Testimony at p 11.

Rather than analyzing the efficiency measures described in Section 2.1 to determine how they could be best deployed for the purpose of reducing winter peak, it appears that DESC designed its energy efficiency programs to meet other purposes or priorities. Any winter peak reduction that results will merely be an incidental benefit. These other priorities, such as higher energy savings, lowering overall utility costs, and better serving low income customers, are also important, and Efficiency Intervenors are not suggesting that DESC be required to entirely reinvent their portfolio to prioritize *only* winter peak reduction. But DESC should have explicitly made winter peak *a targeted priority* when evaluating not only whether, but *how* the measures in Section 2.1 should be deployed in its portfolio.

Specifically, for a utility to prioritize measures that reduce utility system winter peak demand, the utility must offer energy efficiency measures in a manner that helps customers maximize winter energy savings. To maximize winter peak reduction, for example, a customer seeking to install an efficient heat pump in their home should be offered corresponding incentives to first ensure that the home’s building envelope and

ductwork is fully sealed and insulated; doing so will allow the installation of a smaller HVAC system that needs to run for fewer hours. Thus, utility programs should be designed so that a customer seeking a new HVAC unit: (1) first undergoes a thorough home energy analysis that includes an assessment of the home's building envelope and ductwork; and (2) is able to have any needed building envelope and ductwork improvements completed prior to, or at the same time as, major investments in efficient HVAC equipment. Customers are much less likely to go back and resolve building envelope or ductwork issues after an HVAC unit has been installed, and failing to address these issues when a customer seeks out a new HVAC unit is a lost opportunity to optimize the size and operation of the HVAC system. By offering incentives for efficient HVAC equipment along with building envelope and ductwork measures, a utility can reduce the costs of replacing HVAC equipment and achieve greater winter peak savings at the same time.

DESC's portfolio, however, has separated the key measures needed to produce this outcome into separate programs, and these programs do not appear to offer the type of comprehensive home energy analysis required to help most of its customers implement meaningful home energy savings measures. For example, one program in the DESC portfolio—Heating and Cooling—offers HVAC and duct rebates but does not include insulation or full home leak reduction. Potential Study, Hearing Exhibit 1, pp. 62 and 127. Another program—Home Energy Check-Up—will offer in its new “Tier 2” initiative “air sealing, home insulation, and “other home shell” measures, but appears to omit ductwork and does not specify which measures will ultimately be offered under the program or how those measures will be coordinated with HVAC improvements.

Potential Study, Hearing Exhibit 1, pp. 64, 127.<sup>1</sup> And, as noted earlier, a full energy audit of the home is required to effectively coordinate insulation, building envelope leak reduction, ductwork improvements, and HVAC upgrades in a manner that produces maximum energy savings and winter peak reduction. However, DESC's Home Energy Check-Up program currently provides only a walk-through audit that does not perform the analysis necessary to quantify and reduce building envelope leakage. Potential Study, Hearing Exhibit 1, p. 64. The program descriptions for the updated Heating and Cooling and for Home Energy Check-Up are silent on how energy audit will be conducted to help guide customer decisions and the quality of contractor work. Potential Study, Hearing Exhibit 1, pp. 62-65

DESC's Neighborhood Energy Efficiency Program ("NEEP") offers a more complete combined measure list that provides a helpful contrast with the Heating and Cooling and Home Energy Check-Up programs. NEEP offers mobile home customers a new thermostat, duct sealing, air sealing, and attic insulation—thereby combining both the duct and building envelope measures in a single program. Potential Study, Hearing Exhibit 1, p. 127 (emphasis added). Unfortunately, these measures will be offered to only approximately 150 customers per year out of the approximately 4,400 annual NEEP customers. While the building envelope measure list for NEEP is more clear and complete than the two programs aimed at a broader audience, the fact that fewer than 4% of customers served through NEEP will be given the full range of more important energy-saving measures is another example of Efficiency Intervenors' observation that, while DESC's program portfolio appears on the surface to include winter peak reduction

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<sup>1</sup> One description of the planned Home Energy Check-Up program states that "[t]he shell measures *could include* a wide range of insulation, such as attic knee wall, radiant barrier, wall insulation, and attic access covers, as well as air sealing and window film." Hearing Exhibit 1, p. 29 (emphasis added).

measures, upon deeper inspection they are not deployed in a manner or degree that would aggressively tackle winter peak.

Given the separate approaches of the related Home Energy Check-Up program and Heating and Cooling program—and the fact that DESC has not yet specified particular measures for the Home Energy Check-Up program—Intervenors recommend program coordination and combined measure tracking (addressed below) as a reasonable way to maximize ratepayer investment, energy savings, and winter peak reduction. Specifically, Efficiency Intervenors recommend that DESC ensure that Heating and Cooling customers who purchase new HVAC equipment also undergo a full and proper home energy analysis and, where appropriate, receive ductwork improvements, leak sealing, and home insulation. Similarly, Home Energy Check-Up customers should, whenever possible, receive all cost effective building envelope measures, including insulation, leak sealing, and ductwork improvements, based upon best practice auditing for these measures.

In summary, even if some of the measures recommended in the late-filed exhibit are offered in some parts of DESC's portfolio, they cannot be considered duplicative because DESC has failed to implement them in a way that reasonably maximizes energy savings and winter peak reduction. Efficiency Intervenors' late-filed exhibit simply reiterated what the Commission has already asked DESC to do—to prioritize winter peak reduction by analyzing how it could deploy the suggested measures specifically for the purpose of reducing winter peak.

**2) At minimum, DESC should be required to track each program's impact on winter peak in its annual EM&V reports moving forward.**

At minimum, DESC should be required to report on how many homes actually receive the combined winter peak reduction measures— air seal and insulate, replacing resistance heat with heat pumps, smart thermostats, and ductwork sealing and insulation—under each of its programs, and to track and report on actual winter peak reductions that result. For example, the Commission could require that DESC report on the percentage of homes participating in each of its programs that received each of the measures affecting winter peak, such as air sealing, duct improvements, or HVAC upgrades, with an emphasis on encouraging customers to comprehensively implement all cost effective measures. DESC could also be required to report on the projected winter peak savings from each of its programs in a similar format to Table A from DESC’s response to the late filed exhibit. Requiring DESC to report in more granular detail the extent to which the Company is actually implementing measures to reduce winter peak and the associated peak savings would allow DESC, the Commission, and interested parties to better identify and address any program gaps.

### **3) Conclusion**

In conclusion, DESC has not prioritized energy efficiency measures to reduce winter peak in the manner suggested in Section 2.1 of the late filed exhibit and required by the Commission in Order 2018-322(A). As such, the measures in the late filed exhibit do not duplicate DESC’s existing portfolio and DESC should evaluate how to add to or adjust its portfolio to prioritize these measures within a new targeted program or within its existing programs. Regardless, DESC should be required to include in its annual report the number of homes where the combination of air sealing, duct sealing, and

HVAC upgrades were completed each year and report on the resulting winter peak reductions.

Respectfully,

s/ William C. Cleveland IV

William C. Cleveland IV

SC Bar No. 79051

Southern Environmental Law Center

525 East Bay Street, Suite 200

Charleston, SC 29403

Telephone: (843) 720-5270

Fax: (843) 720-5240